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S.D. Curtin 10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s): Steven DeArmond Curtin
Case: 10
Serial No.: 09/444,818
Filing Date: November 22, 1999
Group: 2141
Examiner: Adnan M. Mirza

Title: Methods and Apparatus for Identification and Purchase
of Broadcast Digital Music and Other Types of Information

TRANSMITTAL OF SUPPLEMENTAL APPEAL BRIEF

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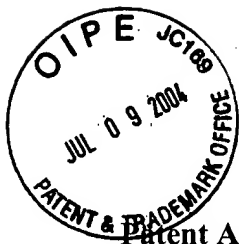Submitted herewith are the following documents relating to the above-identified patent application:

(1) Response to Office Action; and
(2) Supplemental Appeal Brief in triplicate (original and two copies).

There is no additional fee due in conjunction with the response. In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Ryan, Mason & Lewis, LLP Account No. 50-0762** as required to correct the error.

Respectfully submitted,

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Date: July 7, 2004

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Sir:

This Supplemental Appeal Brief is submitted in response to the Office Action dated April 7, 2004 in the above-referenced application, in which the Examiner reopened prosecution in response to the Appeal Brief filed May 27, 2003.

Applicant has submitted concurrently herewith a response to the Office Action, requesting reinstatement of the appeal.

REAL PARTY IN INTEREST

The present application is assigned to Agere Systems Inc. The assignee Agere Systems Inc. is the real party in interest.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals and interferences.

STATUS OF CLAIMS

Claims 1-23 are pending in the present application. Claims 1, 12 and 23 are the independent claims. Claims 1, 12 and 23 stand rejected under 35 U.S.C. §112, first paragraph. Claims 1-23 stand rejected under 35 U.S.C. §103(a). Claims 1-23 are appealed.

STATUS OF AMENDMENTS

There have been no amendments filed subsequent to the final rejection.

SUMMARY OF INVENTION

The present invention is directed to a method and associated apparatus for providing music information or other types of information to a user. Identification information is extracted from a current wireless broadcast which is being presented in a perceptible form to a user, in response to a command from the user. The command is entered at a wireless receiver, and the identification information is extracted and stored without requiring any connection between the wireless receiver and an access point of a data network. The extracted identification information is subsequently delivered over the data network to a server which processes the identification information to identify at least one deliverable information item associated with the broadcast.

An illustrative embodiment of the invention is in the form of a digital audio broadcast (DAB) receiver 102 as shown in FIG. 1 of the drawings. The operation of the receiver 102 is described as follows at page 5, lines 18-28:

> For example, when a user hears a particular song or other piece of music of interest being output by a speaker associated with the receiver 102, the user can push a button or otherwise enter a command or other instruction to direct the interface microcontroller 112 to store extracted music information for the current audio output in the RAM 114. As another example, the user can enter a command or other user input that specifies that the receiver 102 enter a mode in which it automatically stores extracted music information for each of the pieces of music that are broadcast while the receiver remains in that mode.

At a later point in time, e.g., when the user is able to establish a network connection 115 via a wireless transceiver that may be implemented at least in part in the interface microcontroller 112, the extracted music information is transmitted over the network connection 115 to a music server which is capable of delivering the corresponding music.

The specification at page 6, lines 3-17, further indicates that the DAB receiver 102 of the illustrative embodiment may be installed in an automobile, and in this and other implementations provides a number of significant advantages relative to conventional techniques. For example, the invention allows a user to provide a simple input, e.g., a push of a single button, to indicate that a particular broadcasted piece of music is of interest, and the receiver 102 automatically extracts from the broadcast information that the user will need to download or otherwise purchase the piece of music from a different source. This ensures that the user need not rush to establish a network connection while the broadcast is in progress, and also completely eliminates the need for the user to write down or otherwise remember easily-forgotten information such as the radio station or time of the broadcast.

ISSUES PRESENTED FOR REVIEW

1. Whether claims 1, 12 and 23 fail to comply with the enablement requirement of 35 U.S.C. §112, first paragraph.

2. Whether claims 1-23 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,317,784 (hereinafter "Mackintosh") in view of U.S. Patent No. 5,616,876 (hereinafter "Cluts").

GROUPING OF CLAIMS

With regard to Issue 1, claims 1, 12 and 23 stand or fall together.

With regard to Issue 2, claims 1-6, 11-17, 22 and 23 stand or fall together, claims 7 and 18 stand or fall together, claims 8 and 19 stand or fall together, claims 9 and 20 stand or fall together, and claims 10 and 21 stand or fall together.

ARGUMENT

Issue 1

The Examiner argues that a certain limitation recited in independent claims 1, 12 and 23 is not described in the specification in such a way as to enable one skilled in the art to make or use the invention. More specifically, the Examiner alleges that the specification fails to enable the limitation which relates to a command being entered at a wireless receiver, with the identification information being extracted and stored without requiring any connection between the wireless receiver and an access point of a data network. Applicant respectfully traverses.

The limitation in question is fully described and enabled by the specification, as is readily apparent from even a cursory review of the Summary section above. As indicated in that section, an illustrative embodiment of the invention is in the form of a DAB receiver 102 as shown in FIG. 1 of the drawings. The operation of the receiver 102 is described as follows at page 5, lines 18-28, of the specification, with emphasis supplied:

> For example, when a user hears a particular song or other piece of music of interest being output by a speaker associated with the receiver 102, the user can push a button or otherwise enter a command or other instruction to direct the interface microcontroller 112 to store extracted music information for the current audio output in the RAM 114. As another example, the user can enter a command or other user input that specifies that the receiver 102 enter a mode in which it automatically stores extracted music information for each of the pieces of music that are broadcast while the receiver remains in that mode.
>
> At a later point in time, e.g., when the user is able to establish a network connection 115 via a wireless transceiver that may be implemented at least in part in the interface microcontroller 112, the extracted music information is transmitted over the network connection 115 to a music server which is capable of delivering the corresponding music.

Thus, the specification clearly describes an arrangement in which a command is entered at a wireless receiver 102, and identification information is extracted from a broadcast received via antenna 104 and stored, without requiring any connection between the wireless receiver 102 and an access point

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of a data network accessible via network connection 115. The §112 rejection is believed to be entirely without merit, and should be withdrawn.

Issue 2

Applicant respectfully traverses the §103(a) rejection of claims 1-23.

The Manual of Patent Examining Procedure (MPEP), Eight Edition, August 2001, §706.02(j), states as follows with regard to the burden that the Examiner must meet in order to establish a proper §103(a) rejection:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicant respectfully submits that the Examiner has failed to meet one or more of the above-noted basic criteria, and a proper *prima facie* case of obviousness has therefore not been established.

More specifically, Applicant submits that the Mackintosh and Cluts references, even if assumed to be combinable, fail to "teach or suggest all the claim limitations."

In addition, Applicant submits that there is insufficient motivation to combine Mackintosh and Cluts, or to modify their collective teachings to meet the claim limitations.

Furthermore, even if it is assumed that the Examiner has established a proper *prima facie* case of obviousness, there are specific teachings in one or more of the references which refute the allegations of obviousness.

With regard to independent claim 1, this claim specifically includes at least the following limitations:

(i) identification information is extracted from a wireless broadcast in response to a command entered at a wireless receiver, the identification information being extracted and stored without requiring any connection between the wireless receiver and an access point of a data network; and

(ii) the extracted identification information is subsequently delivered over the data network to a server for processing.

Assuming initially for purposes of argument that the Mackintosh and Cluts references are combinable in the manner urged by the Examiner, their combined teachings nonetheless fail to teach or suggest at least limitations (i) and (ii) above.

The Mackintosh reference generally describes techniques for delivery of music over a data network such as the Internet, wherein a listener "receives the broadcast material and the program data via the Internet connection and plays it on his or her computer, workstation or other Internet terminal" (Mackintosh, column 3, lines 17-18). Similarly, Cluts is directed to an interactive network which provides music to subscribers. As stated in Cluts, "[e]ach consumer within a neighborhood node of the consumer system 14 is connected to the distribution network 16 via a subscriber drop cable 46 . . . connected to a set-top terminal 48 or set-top box . . . [which] allows the consumer to (1) receive program modules and programming information distributed by the headend system 12 and to (2) transmit requests or instructions to the headend system 12" (Cluts, column 8, lines 37-49). Therefore, both Mackintosh and Cluts require connection to a data network, such as the Internet or other distribution network, for extraction of identification information in response to a user command. Neither Mackintosh nor Cluts teach or suggest an arrangement in which identification information is extracted from a wireless broadcast in response to a user command entered at a wireless receiver, with the identification information being extracted and stored without requiring any connection between the wireless receiver and an access point of a data network, and the extracted identification information being subsequently delivered over the data network to a server for processing.

The Examiner in formulating the §103(a) rejection of claim 1 argues that limitation (i) above is met by column 8, lines 41-50 and column 9, lines 19-33 of Mackintosh (Final Office Action, page

2, section 2). Applicant respectfully disagrees. These cited portions of Mackintosh provide as follows, with emphasis supplied:

> In a step 222, radio station 204 provides its broadcast materials to a broadcast Internet service provider 208. In one embodiment, the materials provided to broadcast Internet service provider 208 can include the actual radio broadcast from radio station 204 as well as event codes indicating current tracks in that broadcast, current advertising in that broadcast, or other data associated with the real time broadcast. In one embodiment, these signals can be broadcast via an AM or FM radio link to broadcast Internet service provider 208.
>
> . . .
>
> The cut number can be a numeric or alphanumeric identification (ID) that identifies the particular cut. The category of the cut can include, for example, an identification of the type of cut to which the cut number or program data refers. For example, the cut category may differentiate between music, ad traffic, DJ segments, and link promos. Other or additional categories can be included as well.
>
> Additionally, information pertaining to the format of the cut can be included as well. Such format information can further indicate a type of music (e.g., pop, rock, jazz, classical, country and western, etc.), or a type or category of product being advertised (e.g., clothing, food and beverage, insurance, automobile services, etc.). This format information can be used to key particular pieces or categories of supplemental material to the broadcast.

There is no teaching or suggestion in these cited portions of Mackintosh, relied upon by the Examiner, regarding limitation (i) above. For example, there is no teaching or suggestion that identification information may be extracted from a wireless broadcast in response to a command entered at a wireless receiver by a user to whom the broadcast is being presented in perceptible form. Instead, the cited portion indicates that "radio station 204 provides its broadcast materials to a broadcast Internet service provider 208."

The broadcast Internet service provider 208 in Mackintosh is not a user, to whom the broadcast is presented, that enters a command for extraction of identification information from the

broadcast, as specified in conjunction with limitation (i) above. Broadcast Internet service provider 208 is simply an intermediary between radio station 204 and Internet-based users to whom the broadcast will be presented via the Internet, as illustrated in FIG. 5 and described at column 9, lines 49-60 of Mackintosh.

Moreover, the identification information cannot be extracted and stored without requiring any connection between the wireless receiver and an access point of a data network, since in FIG. 5 of Mackintosh the user terminal 212 remains connected to the Internet for the entire period of time for which the user desires to receive the broadcast from broadcast Internet service provider 208. Applicant therefore submits that the Mackintosh reference fails to provide any relevant teachings regarding limitation (i) above.

The Examiner acknowledges that limitation (ii) is not taught or suggested by Mackintosh, but argues that Cluts in column 6, lines 1-10 and column 15, lines 14-25 teaches this limitation (Final Office Action, page 2, last paragraph to page 3, first paragraph). These cited portions of the Cluts reference provide as follows:

> The headend receives satellite-delivered video and audio programming, over-the-air broadcast television station signals, and network feeds delivered by terrestrial microwave and other communication systems. In addition, headends may inject local broadcast programming into the package of signals sent to subscribers, such as commercials and live programs created in a television studio.

> The "distribution system" carries the signals from the headend to a number of distribution points in a community and, in turn, distributes the these signals to individual neighborhoods for delivery to subscribers.

> . . .

> In the preferred system, the each song has a song identification (ID) number that uniquely identifies that song. Similarly, each artist is identified by a unique artist ID number. The digital audio data is stored on a continuous media server by song ID number. The associated administrative information is stored on an administrative server. The administrative information includes the style tables, information for each song (title, artist,

album, etc.), and all of the other databases, graphics, text, etc. that are required by the audio on demand system. A playlist is created by creating a database that includes the song ID numbers of the songs that are included in the playlist.

Applicant submits that there is no teaching in the above-cited portion regarding limitation (ii) of claim 1, that is, delivery of identification information extracted from a wireless broadcast over a data network to a server for processing.

The Mackintosh and Cluts references thus collectively fail to teach or suggest at least limitations (i) and (ii) of claim 1.

Applicant further submits that the Mackintosh and Cluts references are not combinable in the manner urged by the Examiner.

The Federal Circuit has stated that when patentability turns on the question of obviousness, the obviousness determination "must be based on objective evidence of record" and that "this precedent has been reinforced in myriad decisions, and cannot be dispensed with." In re Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, the Federal Circuit has stated that "conclusory statements" by an examiner fail to adequately address the factual question of motivation, which is material to patentability and cannot be resolved "on subjective belief and unknown authority." Id. at 1343-1344.

In the final Office Action at page 3, second paragraph, the Examiner provides the following statement to prove motivation to combine the Mackintosh and Cluts references, with emphasis supplied:

> It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated a delivery of extracted information over a network to a server and to identify at least one delivered information as taught by Cluts in the method [of] Mackintosh to reduce the latency and make the method more versatile.

Applicant submits that this statement is based on the type of "subjective belief and unknown authority" that the Federal Circuit has indicated provides insufficient support for an obviousness

rejection. More specifically, the Examiner fails to identify any objective evidence of record which supports the proposed combination.

In addition, the Examiner fails to acknowledge the specific teaching away from the claimed invention that is inherent in the system shown in FIG. 5 of Mackintosh. As Applicant pointed out above, in FIG. 5 of Mackintosh the user terminal 212 remains connected to the Internet for the entire period of time for which the user desires to receive the broadcast from broadcast Internet service provider 208. Therefore, the identification information cannot be extracted and stored without requiring any connection between a wireless receiver and an access point of a data network, as required by limitation (i) of claim 1. Therefore, one would not be motivated to modify Mackintosh in the manner urged by the Examiner, since such a modification could well result in rendering the Mackintosh system unusable for its intended purpose.

It is therefore believed that a *prima facie* case of obviousness has not been established for independent claim 1.

Furthermore, even if it is assumed that the Examiner has established a proper *prima facie* case of obviousness, there are specific teachings in one or more of the references which refute the allegations of obviousness. For example, as noted above, the Mackintosh reference specifically teaches that the user terminal 212 in FIG. 5 remains connected to the Internet for the entire period of time for which the user desires to receive the broadcast from broadcast Internet service provider 208. This is an explicit teaching away from the claimed invention, in which identification information is extracted and stored without requiring any connection between the wireless receiver and an access point of a data network, in accordance with limitation (i) of claim 1, and as such refutes any *prima facie* case that might otherwise be established.

Independent claims 12 and 23 each include limitations similar to (i) and (ii) above, and are therefore believed allowable for substantially the reasons identified above with regard to independent claim 1.

Dependent claims 2-11 and 13-22 are believed allowable for at least the reasons identified above with regard to their respective independent claims. Moreover, certain of these claims are believed to define separately-patentable subject matter, as indicated below.

With regard to claims 7 and 18, each of these claims generally specifies that the identification information is extracted from a compressed digital audio bitstream associated with the current broadcast. The Examiner argues that this limitation is shown in column 6, lines 5-15 of Mackintosh. However, the cited portion of Mackintosh fails to meet the particular limitation in question. For example, there is no mention in the cited portion of Mackintosh regarding extraction of identification information from a compressed digital audio bitstream. The collective teachings of Mackintosh and Cluts, assuming the references are combinable, therefore fail to render obvious claims 7 and 18.

With regard to claims 8 and 19, each of these claims generally specifies that the identification information is automatically extracted and stored for a plurality of distinct broadcasts upon entry of a corresponding user command. The Examiner argues that this limitation is shown in column 5, lines 40-60 of Mackintosh. However, the cited portion of Mackintosh fails to meet the particular limitation in question. For example, there is no mention in the cited portion of Mackintosh regarding entry of a user command specifying automatic extraction of identification information for multiple distinct broadcasts. The collective teachings of Mackintosh and Cluts, assuming the references are combinable, therefore fail to render obvious claims 8 and 19.

With regard to claims 9 and 20, each of these claims generally specifies that the extracted identification information is stored in a memory of the wireless receiver which receives the current wireless broadcast. The Examiner argues that this limitation is shown in column 5, lines 39-60 of Mackintosh. However, the cited portion of Mackintosh fails to meet the particular limitation in question. For example, user equipment 112 is not disclosed in the cited portion of Mackintosh as being a wireless receiver configured for receiving a wireless broadcast. The collective teachings of Mackintosh and Cluts, assuming the references are combinable, therefore fail to render obvious claims 9 and 20.

With regard to claims 10 and 21, each of these claims generally specifies that the extracted identification information is stored in a removable memory device associated with the wireless receiver which receives the wireless broadcast, and that the removable memory device is removable from the receiver and insertable into another device which establishes a network connection for delivery of the identification information to the server over the data network. The Examiner argues that such an arrangement is shown in column 7, lines 2-27 of Mackintosh. However, the cited

portion of Mackintosh fails to meet the particular limitations in question. For example, there is no mention in the cited portion of Mackintosh regarding a removable memory device associated with the wireless receiver which receives the wireless broadcast, and which is also removable from the receiver and insertable into another device for establishment of a network connection. The collective teachings of Mackintosh and Cluts, assuming the references are combinable, therefore fail to render obvious claims 10 and 21.

In view of the above, Applicant believes that claims 1-23 are in condition for allowance, and respectfully requests the withdrawal of the §112 and §103(a) rejections.

Respectfully submitted,

Date: July 7, 2004

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1. (Amended) A method of providing information to a user, the method comprising the steps of:

storing identification information extracted from a current wireless broadcast which is being presented in a perceptible form to a user, in response to a command from the user, the command being entered at a wireless receiver, the identification information being extracted and stored without requiring any connection between the wireless receiver and an access point of a data network, wherein the identification information specifies sufficient information to identify at least one deliverable information item associated with the broadcast; and

subsequently delivering at least a portion of the extracted identification information over the data network to a server which processes the identification information to identify the at least one deliverable information item associated with the broadcast.

2. The method of claim 1 wherein the current broadcast comprises a particular piece of music.

3. The method of claim 2 wherein the deliverable information item associated with the broadcast comprises a compilation which includes the piece of music.

4. The method of claim 2 wherein the deliverable information item comprises a disk-based storage medium having the piece of music stored thereon.

5. The method of claim 2 wherein the deliverable information item comprises a downloadable file containing the piece of music.

6. The method of claim 2 wherein the identification information comprises at least one of an artist, a title, an album name, a label identifier, a source identifier, a date, and a time associated with the current broadcast of the piece of music.

7. (Amended) The method of claim 1 wherein the identification information is extracted from a compressed digital audio bitstream associated with the current broadcast.

8. The method of claim 1 wherein identification information is automatically extracted and stored for a plurality of distinct broadcasts upon entry of a corresponding user command.

9. (Amended) The method of claim 1 wherein the extracted identification information is stored in a memory of the wireless receiver which receives the current wireless broadcast.

10. (Amended) The method of claim 1 wherein the extracted identification information is stored in a removable memory device associated with the wireless receiver which receives the wireless broadcast, and wherein the removable memory device is removable from the receiver and insertable into another device which establishes a network connection for delivery of the identification information to the server over the data network.

11. The method of claim 1 wherein the extracted identification information is delivered to the server over a network connection established over the Internet.

12. (Amended) An apparatus for use in providing information to a user, the apparatus comprising:

a storage device connectable to a wireless receiver, for storing identification information extracted from a current wireless broadcast which is being presented in a perceptible form to a user, in response to a command from the user, the command being entered at the wireless receiver, the identification information being extracted and stored without requiring any connection between the wireless receiver and an access point of a data network, wherein the identification information specifies sufficient information to identify at least one deliverable information item associated with the broadcast, such that at least a portion of the identification information is subsequently deliverable over the data network to a server which processes the identification information to identify the at least one deliverable information item associated with the broadcast.

13. (Amended) The apparatus of claim 12 wherein the current broadcast comprises a particular piece of music.

14. (Amended) The apparatus of claim 13 wherein the deliverable information item associated with the broadcast comprises a compilation which includes the piece of music.

15. (Amended) The apparatus of claim 13 wherein the deliverable information item comprises a disk-based storage medium having the piece of music stored thereon.

16. (Amended) The apparatus of claim 13 wherein the deliverable information item comprises a downloadable file containing the piece of music.

17. (Amended) The apparatus of claim 13 wherein the identification information comprises at least one of an artist, a title, an album name, a label identifier, a source identifier, a date, and a time associated with the current broadcast of the piece of music.

18. (Amended) The apparatus of claim 12 wherein the identification information is extracted from a compressed digital audio bitstream associated with the current broadcast.

19. (Amended) The apparatus of claim 12 wherein the identification information is automatically extracted and stored for a plurality of distinct broadcasts upon entry of a corresponding user command.

20. (Amended) The apparatus of claim 12 wherein the storage device comprises a memory of the wireless receiver which receives the current wireless broadcast.

21. (Amended) The apparatus of claim 12 wherein the storage device comprises a removable memory device associated with the wireless receiver which receives the wireless broadcast, and

wherein the removable memory device is removable from the receiver and insertable into another device which establishes a network connection for delivery of the identification information to the server over the data network.

22. (Amended) The apparatus of claim 12 wherein the extracted identification information is delivered to the server over a network connection established over the Internet.

23. (Amended) An apparatus for use in providing information to a user, the apparatus comprising:

a wireless receiver having associated therewith a storage device for storing identification information extracted from a current wireless broadcast which is being presented in a perceptible form to a user, in response to a command from the user, the command being entered at the wireless receiver, the identification information being extracted and stored without requiring any connection between the wireless receiver and an access point of a data network, wherein the identification information specifies sufficient information to identify at least one deliverable information item associated with the broadcast, such that at least a portion of the identification information is subsequently deliverable over the data network to a server which processes the identification information to identify the at least one deliverable information item associated with the broadcast.